

THE EFFECT OF INSTITUTIONAL CHANGE, EQUALIZATION FUND AND LOCALLY-GENERATED REVENUE TOWARDS THE ECONOMIC GROWTH IN INDONESIA PERIOD 2000-2015

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Abstract: *This study aimed to determine the effect of institutional change, equalization fund and local revenues towards Indonesia economic growth in 2000-2015. This study used panel data in 2000-2015 on 33 provinces in Indonesia with 528 rows of data. The data collecting in this study used documenter technique, by taking data on the regional expansion in Indonesia, the general allocation fund, a special allocation of funds, tax sharing, revenue-sharing natural resources, regional income, and economic growth in Indonesia from 2000 to 2015 which was issued by the Central Statistics Agency (BPS). The data were analyzed using multiple linear regression analysis. Before doing the regression analysis, classical assumption test was done. Classic assumption test showed that the data were free from symptoms multicollinearity, heteroscedasticity and autocorrelation. The results showed that the institutional change, tax sharing, revenue-sharing resources, the special allocation fund and the local revenue gave positive and significant impact on regional economic growth, while the general allocation fund has no effect on the growth of regional economies. The institutional change must be accompanied by practical guidelines for financial governance and the utilization of the area which is accompanied by reward and punishment. The implementation of institutional change should be supported by the quality improvement efforts of financial governance for optimization sectors of local revenue and expenditure of local revenue sectors.*

Keywords: *Institutional change, economic Growth, fiscal decentralization, revenue.*

INTRODUCTION

Regional autonomy and fiscal decentralization in Indonesia have been setted in the Law (UU) No. 5 of 1974 about the Principles of Regional Governments (Sjafrizal, 1997). However, the practice of the new fiscal decentralization was going to be executed on January 1, 2001 by Law No. 25, 1999 which was already replaced by Law No. 33 of 2004 about Financial Balance between Central and Local Government. According to Law No. 33 of 2004 on Financial Balance between Central and Regional Government (Article 5), Own-Source Revenue (OSR), equalization fund and other income. Central-Regional Financial Balance Fund (CRFBF) is a transfer mechanism

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of central-local government which consists of Tax Revenue Sharing (TRS) and Natural Resources Tax (TRSP and NRT), General Allocation Fund (GAF) and Special Allocation Fund (SAF). Regional Funding comes from the Regional budget surplus (SAL), regional loan, the reserve local and the separated regional wealth privatization.

The implementation of fiscal decentralization policy gave many consequences in their institutional change on the regional governments at provincial and district levels. Institutional change is defined as a change in the institutional structure of local government arising from the regional growth and changes in the organization structure. Institutional change was due to Law No. 32 of 2004 on Regional Government and Law No. 33 of 2004 on Financial Balance between Central and Local Government which gave wide space to local governments to manage the main functions of the public service, with the funding support center via submission sources of revenue to the area. As a result, institutional changes in an era of fiscal decentralization can bring empirical gap, theoretical gap, and policy gap.

First, empirical gap. Ideally, the spending of all local government can be fulfilled by using the Local Own-Source Revenue (LOSR), so that the area becomes completely autonomous. However, the facts show that during 2001-2004, the role of LOSR to routine expenditures and total expenditures in the budget were decreases. The reduced role of LOSR to routine expenditures and total expenditures in the budget indicates that an increased role of the central government transfer mechanism through grants (Mahi, 2005). The increasing realization of the balance funds due to the revenue sources of the tax and non-tax revenues increased significantly in 1999-2004 (Wibowo, 2008). The implementation of fiscal decentralization is expected to boost local economic growth. However, the results that Davoodi and Zou (1998) conducted in 46 developed countries and developing countries, showed that there is no relationship between fiscal decentralization and the rate of economic growth in industrialized countries. The results of a research by Woller and Phillips (1998) also showed that fiscal decentralization does not have a significant impact on economic growth in developing countries.

Second, theoretical gap. The institutional change theory is very relevant to analyze the fiscal effect of institutional change to regional economic growth. However, the theory of institutional change is not used yet in order to analyze the institutional changes that occur on provincial and district local government especially in an era of fiscal decentralization in particular relation to economic growth in Indonesia. The application of the institutional change theory in the empirical study has not been performed to analyze the benefits of institutional change era towards fiscal decentralization on economic growth in Indonesia.

Third, policy gap. Policy gap is related to institutional change of fiscal decentralization era which began to emerge from the issuance of Law No. 5 of

1974 on the Principles of Regional Government; The gap which arised from the law are government centralized. The next gap arises from UU No. 33 of 2004 on Financial Balance between Central and Local Government. Gap from these laws is the responsibility of utilization equalization funds which are not accompanied by strong sanctions and caused many balancing unaccountability report. Furthermore, there is also policy gap of Law No. 28 Year 2009 on Taxes and Levies. Policy gap which arise is the division of an authority between the handling of taxes and levies provincial and district government. It is less clear that a potential conflict of interest at the local level. Law No. 32 Year 2004 on Regional Government also raises the policy gap in the form of the division of authority between the center and the less obvious areas which causes so many overlapping. Based on the background above, this research focuses on the influence of institutional change, equalization fund and local revenues to regional economic growth Indonesia in period 2000-2015.

Based on the background of the problem, the problem in this research is: How does the influence of – either together or partially – Institutional change (IT), General Allocation Fund (GAF), the Fund for the results derived from Tax (TRSP), Fund for Results comes from Natural Resources (FRNR), Special Allocation Fund (SAF) and revenue (LOSR) to the Regional Economic Growth in Indonesia from 2000 to 2015?

LITERATURE REVIEW AND THE FORMULATION OF HYPOTHESES

Institutional change in the civilization means a change in the regulatory and organizational principles, behaviors, and patterns of interaction (Yustika, 2008). Institutional change has two dimensions. First, the configuration changes between the roles of economy which will trigger a institutional change. In this approach, institutional change is considered as the impact of changes (interest / configuration) economic roles. Second, institutional change deliberately designed to influence (regulate) economic activity. In this position, institutional change is placed actively as an instrument to regulate economic activity, including the actors involved (Yustika, 2008). Institutional change occurs more intensively in the era of fiscal decentralization.

Fiscal decentralization is a process of budget distribution from the higher levels of government to the lower governmental support functions or duties of the delegated administration. Fiscal decentralization is a logical consequence of the implemented policy of regional autonomy (Law No. 32 of 2004 on Regional Government). Fiscal Decentralization carried out through equalization fund which consists of revenue-sharing, the general allocation fund and special allocation funds.

First, Result Alocation Funds (TRS). Result Aloocation Funds is sourced from taxes and natural resources. Funds for the results are from taxes which is derived

from land and building tax (LBT/PBB), Bea Acquisition of Land and Building (BALB) and Income Tax (IT). Funds for the results / Result Allocation Funds obtained from natural resources from forestry, mining, fisheries, petroleum, gas, and geothermal. TRS from PBB and BPHTB divided between the province, regency / city, and the government (Law No. 33 of 2004 Article 11 and 12).

Second, the General Allocation Fund. GAF is the distribution of federal funds which is *lump sum*, the formula is based on several variabel including population, area, and its fiscal areas concerned. These funds are channeled in order to reduce disparities between provinces and between districts / cities. The total number of GAF set is no less than 26% of Net Domestic revenue in the state budget. The result of the calculation of GAF per provinces, districts and cities designated by Presidential Decree (RI Law No.33 of 2004 Section 27, 29 and 35).

Third, the Special Allocation Fund (SAF). SAF is a transfer of funds that are specific to certain regions in the framework of national commitments and only distributed to the District Government / City. The amount of SAF established annually in the state budget. SAF is allocated to certain regions to mark special activities which are regional affairs. That is specific activity in accordance with its assigned function in the state budget. The government set the criteria for SAF, including general criteria, specific criteria and technical criteria. SAF receiving area is required to provide matching funds of at least 10% of the SAF. The matching funds are budgeted in the budget. Regions with specific fiscal not required to provide matching funds. The further provisions on SAF stipulated in Government Regulation (Law No. 33 of 2004 Article 38, 39, 40, 41, and 42).

This institutional change is believed will give an impact on economic growth. Simon Kuznets (in Jhingan, 2000: 57), defines economic growth as a long-term increase in a country's ability to provide more and more kinds of economic goods to its citizens. Economic growth is a process of increase in output per capita in the long term, with an emphasis on three things: process, output per capita and long-term (Kuncoro, 2009).

Economic growth is also associated with an increase of output per-capita (Parkin and Bade, 1995). The development of economic activity led the goods and services produced in the community grow, and prosperity of society becomes increased. In a macro analysis, the rate of economic growth achieved by a country is measured from the development of real national income reached in a state (Sukirno, 2002). The following theory shows two theories of economic growth that is the theory of economic growth Solow-Swan and economic growth theory Harrod-Domar (Kuncoro, 2002).

According to the theory of economic growth Solow-Swan, an outline of the growth process is similar to the Harrod-Domar theory, with some assumptions: 1) Labor (or population) is growing at a certain rate, for example P per year; Their

production function $Q = f(K, L)$ applicable to each period; 3) There is a tendency of saving (propensity to save) by the community, expressed as the proportion (s) specified on the output (Q). Public savings $S = Sq$; when Q rises S also rises, and vice versa; 4) All public savings invested; $S = I = \Delta K$ (Arsyad, 2004). In accordance with the assumptions regarding the propensity to save, then the number of output with the proportion set aside for savings and further invested. Thus, the addition of capital stock (Todaro and Smith, 2009).

The theory of economic growth Harrod-Domar developed by two economists era Keynes are Evsey Domar and Sir Roy F. Harrod. Harrod-Domar theory has the assumption that: 1) The economy is in a state of full processing (full employment) and capital goods are consisted in a society used in full; 2) The economy consists of two sectors, namely the household sector and the corporate sector; 3) The amount of private savings is proportional to the magnitude of national income, it means that savings function starts from ground zero; 4) The tendency to save (marginal propensity to save = MPS) is a fixed amount, it is similar to the ratio between capital-output (capital-output ratio = COR) and the ratio of the increase of the capital-output (incremental capital-output ratio = ICOR) (Todaro and Smith, 2009).

The theoretical framework of this study is as follows: Institutional change in demonstrated fiscal era is decentralization of changes in regulations and organizational principles, behaviors, and patterns of interaction within the community which give a result of regional expansion and changes in the organization structure. Institutional change in the era of decentralization of fiscal also impact on the management and use of matching funds. Management and utilization of the balance funds are targeted will have an impact on regional economic growth and disparities in income distribution.

Institutional change is embodied in the regional growth and the changes in the structure of government. Regional expansion and changes in the structure of government led to a change of local governance in the effort to improve the regional gross of domestic product. The local government which is experiencing division will continuously generate income and accelerate economic growth in the region so that the people are served can be more prosperous.

Fiscal decentralization is characterized by a distribution of the budget from the higher levels of government to the lower governmental in order to support the government functions which are devolved as a consequence of the implementation of regional autonomy policy. Delegation of authority from the central government to local governments also consequence disbursement balance. The balancing funds consist of funds for the results derived from the tax funds for the results obtained from natural resources, the general allocation fund, and special allocation funds. The impact of equalization funds to economic growth and reduction of inequality of income distribution can theoretically be described in the following sections.

Funds for the results derived from the theoretical tax gives a positive effect on regional economic growth. This is because after the fiscal decentralization, the proportion of revenue sharing funds is derived from taxes (UN, BPHTB, and income tax) for the area (province) is greater than before the fiscal decentralization. Thus, profit sharing fund is sourced from a tax which could increase the reception area which was subsequently used to boost regional economic growth.

Special Allocation Fund (SAF) theoretically gives a positive effect on regional economic growth. This could happen because of SAF is distributed by the central government to local governments in the context of national commitments and only distributed to the District Government/City. SAF is allocated to certain regions for example for the accelerated of developing the underdeveloped region. Therefore, SAF that is given to underdeveloped region in all areas of Indonesia is expected to increase economic growth areas that receive SAF.

Here are some relevant previous studies. *First*, research Jutting et al. (2004), by using cross-country data showed that the relationship between fiscal decentralization to the eradication of poverty was ambiguous. In some poor countries, the quality of institutions and the political conflict caused poverty eradication policies that did not reach the target.

Secondly, research by Welly and Waluyo (2000), which used GRDP data with no oil and gas between 1983 to 1997 showed the disparity index moved from 0.49 to 0.54. Using the data from real GRDP stated that during the period of 1968-1997 inter-provincial Income Disparity index increased. DKI Jakarta, East Kalimantan, West Kalimantan, Central Kalimantan, Bali, and Riau were the most prosperous province, while the worst affected province, namely: East and West Nusa Tenggara, Bengkulu and Jambi. Generally, the provinces in eastern Indonesia occupied a low position.

Third, research by Brandt and Zhu (2000) which showed that in terms of the monetary authority, the financial transfer mechanism from central-district potentially cause problems in the operation of the monetary control. Fiscal decentralization raises the risk of changes in the behaviour of fiscal restraint in districts. If the local government allocate funds to strengthen the foundation of the region's economy, it will have a positive impact on economic growth (Brandt and Zhu, 2000).

Based on a literature review of the hypothesis in this study were: Institutional change (IK), General Allocation Fund (GAF), Tax Revenue Sharing Fund (TRSF), Natural Resources Revenue Sharing Fund (NRRSF), Special Allocation Fund (SAF) and Own-Source Revenue (ORS) either together or partially affect the Regional Economic Growth in Indonesia from 2000 to 2015.

Research Method

The paradigm that was used in this research was the paradigm of positivistic. Positivistic research paradigm is the paradigm of quantitative research based on positivistic philosophy. This study used a positivistic paradigm for research based on science quantitative data, and facts that had occurred that can be captured by the five senses (Hussey and Hussey, 1997).

The data of this study used pooled data as many as 528 pieces at 33 provinces consisting of 26 of the original province and 7 new provinces (expansion) within 16 years (2000-2015). The data came from the published data, the central bank and Ministry of Finance. The operational definition of the variables that were used in this study are as follows: First, the institutional change was a change in the regulatory and organizational principles, behaviours, and patterns of interaction within the community as a result of regional expansion and changes in the organization structure. Second, the fund balance was the budget distribution from central governments to the district government in order to support the functions or administration duties that was delegated which consist of General Allocation Fund, Special Allocation Fund, Taxes and Natural Resources. Values balance funds in rupiah; Third, the Original District income which was the accumulation of tax receipts, retribution, profit enterprises, and other unauthorized reception measured in rupiah. Fourth, regional growth was the total value of all the final output produced by an economic in a certain area that is measured by the value of GDP in rupiah.

Data Analysis Technique

Data analysis for the impact of institutional change in era of fiscal decentralization on economic growth and the GDP disparity was done by using multiple regression analysis. The dependent variable in this study was the Regional Economic Growth (REG), while the independent variables are Institutional change (IT), General Allocation Fund (GAF), Revenue Sharing Fund (TRSF), Natural Resources Revenue Sharing Fund (NRRSF), Special Allocation Fund (SAF) and Own-Source Revenue (ORS). Thus, the regression equation as follows:

$$REG = \beta_0 + \beta_1TK + \beta_2DAU + \beta_3DBHP + \beta_4DBHSDA + \beta_5DAK + \beta_6PAD + e$$

Information:

REG = Real Regional Economic Growth

IK = Institutional change era Fiscal Decentralization

GAF = General Allocation Fund

DBHTRS = DBH Taxes Revenue Sharing

DBHNRRS = DBH Natural Resources Revenue Sharing

X4 = Special Allocation Fund

X5 = Local Revenue

β_0 = Constant regression

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6$ = regression coefficient

e = Error bully

In order to be a model of multiple regression estimator which was BLUE (best linear, Unbiased, estimator). Therefore, it had to be tested with classical assumption test.

Classic Assumption Test

There were three classic assumption test that must be fulfilled, which were multicollinearity test, heteroscedasticity test and autocorrelation test. Multikolinearitas was a situation that indicates that one or more independent variables could be expressed as a linear combination of the other variables. Heteroskedasticity was circumstances indicate that the disturbance factor does not have the same variant. In order to determine whether there is a problem of heteroscedasticity, in this study used Spearman Rank Correlation Test with the following conditions (Ghozali, 2005). Autocorrelation sas the state that indicate any confounding factors with interconnected to each other, testing of the symptoms of autocorrelation can be done by testing the Durbin-Watson (DW).

F-Test and t-Test

For testing all predictors for regression coefficients simultaneously, the test was conducted by test F-test. The hypothesis to test F, namely:

H0: $\beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = \beta_6 = 0$, means that the independent variables simultaneously do not have significant effect on the dependent variable.

Ha: $\beta_1; \beta_2; \beta_3; \beta_4; \beta_5; \beta_6$ minimal one $\neq 0$, means that the independent variables simultaneously have significant effect on the dependent variable.

F-count formula is as follows:

$$F_{count} = \frac{R / (k - 1)}{(1 - R) / (n - k)}$$

Information:

R = coefficient determination

k = number of independent variables

n = number of samples

With a certain degree of confidence: If the F-count < F table, then H0 is accepted, which means the simultaneous independent variable has no effect on the dependent variable; otherwise if the F-count ≥ F tables, then H0 rejected, which means that simultaneous independent variables affect the dependent variable.

In order to test whether each independent variable had positive influence on Indonesia regional economic growth the t-test was done. Hypothesis testing the level of significance was as follows (Gujarati, 2003):

H0: $b_i = 0$, that means that the independent variable do not have significant positive effect on the dependent variable.

Ha: $b_i > 0$, which means that the independent variable has significant positive effect on the variable dependent.

t-count formula is as follows:

$$t_{hit} = \frac{b_1}{SDb_1}$$

Information:

b_1 = is the coefficient estimator b_i

SD = Standard Deviation

With a certain degree of confidence, if: $t < t$ table, then H0 is accepted and Ha is rejected, means that individual independent variable has no significant effect on the dependent variable; otherwise if t arithmetic e'' t table, then H0 is rejected and Ha is accepted, means that individual independent variables significantly influence the dependent variable.

The last test was measuring the relationship between independent and dependent variables to set of numbers based on the data observation, which is often called the coefficient of determination (R^2). The coefficient of determination showed the influence of independent variables on the dependent variable simultaneously. The formula Adjusted R^2 , were as follows (Wooldridge, 2006):

$$R^2 = 1 - \left(\frac{n-1}{n-k} \right) \left(\frac{RSS}{TSS} \right)$$

Information:

R^2 = Adjusted R^2

RSS = Residual Sum Square (Sum of Squares Time)

TSS = Total Sum Square (Sum of Squares Total)

In order to determine the effect of independent variables on the dependent variable, indicated the β coefficient.

DATA ANALYSIS AND DISCUSSION

Data analysis

To initiate the data analysis and discussion, it should be restated on the definition of institutional change, the expansion area, and its history. Institutional change (institutional change) in the community meant a change in the regulatory and organizational principles, behaviors, and patterns of interaction (Yustika, 2008). Institutional change had two dimensions. First, the configuration changes between people that did the economy will trigger a transformation of institutions (institutional change). Second, the institutional change was intentionally designed to have an impact on economic activity (Yustika, 2008).

Institutional change caused by the expansion or changes in the institutional structure. There were seven provinces, 135 regencies, and 32 cities were formed as a result of regional expansion period 2000-2015. Since independence, the expansion of the province in Indonesia had been done for five times, namely: The Independence Struggle Era (1945-1949), Republic of Indonesia State Era (1949-1950), Guided Democracy Era and Old Order (1950-1966). The New Order Era (1966-1998), and Era 1999-present. In 1999,

In order to test the effect of independent variable on the dependent variable regression analysis techniques was used. The result of multiple regression analysis are as table 1 below.

Table 1
The Result of Multiple Regressions
Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	T	Sig.
1 (Constant)	-9.573E6	4.521E6		-2.117	.035
Institutional change	1.160E7	6.539E6	.036	1.774	.037
DAU	.007	.010	.016	.764	.445
Tax Revenue Sharing Fund	.060	.005	.495	12.872	.000
Natural Resources Revenue Sharing Fund	.024	.005	.091	4.697	.000
Special Allocation Fund	.127	.059	.042	2.152	.032
Local Own-Source Revenue	.092	.003	1.294	32.628	.000

a. Dependent Variable: PER

Source: BPS data from various editions.

Based on the table above, it can be shown regression equation as follows:

$$\text{PER} = -9.573 + 4,096 \text{ TK} + 0,007 \text{ DAU} + 0,060 \text{ DBHP} + 0,024 \text{ DBHSDA} + 0,127 \text{ DAK}$$

$$(0,035)^{**} \quad (0,037)^{**} \quad (0,445)^{ts} \quad (0,000)^* \quad 0,000^* \quad (0,032)^*$$

$$+ 0.92 PD + e_t$$

$$(0,000)^*$$

$$R^2 = 0,853$$

Notes:

* Significant on alpha 0,01 ($\alpha=1\%$)

** Significant on alpha 0,5 ($\alpha=0,05\%$)

ts = Not Significant on $\alpha=0,05$ (5%)

REG = Regional Economic Growth

IT = Institutional change

GAF = General Allocation Fund

TRSF = Tax Revenue Sharing Fund

NRRSF = Natural Resources Revenue Sharing Fund

SAF = Special Allocation Fund

LOSR = Local Own-Source Revenue

In order to qualify multiple regression equation as assessor that is BLUE (best, linier, unbiased, estimator), it is done classical assumption test.

The Result of Classical Assumption Test

Multicollinearity test in this research is done by considering the value of Variance Inflation Factor (VIF) and tolerance. If the value of VIF is below 10, and the value of tolerance is below 1 and near 1, so it means that it does not occur multicollinearity. From the statistic test, it is obtained the values of VIF and tolerance as in the table below.

Table 1
The Result of Multicollinearity Test with VIF Method and Tolerance
Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	Collinearity Statistics			
	B	Std. Error	Beta	T	Sig.	Tolerance	VIF
1 (Constant)	-9.573E6	4.521E6		-2.117	.035		
Institutional change	1.160E7	6.539E6	.036	1.774	.077	.885	1.130
General Allocation Fund	.007	.010	.016	.764	.445	.837	1.194
Tax Revenue Sharing Fund	-.060	.005	-.495	-12.872	.000	.252	3.967
Natural Resources Revenue Sharing Fund	.024	.005	.091	4.697	.000	.989	1.011
Special Allocation Fund	.127	.059	.042	2.152	.032	.978	1.022
Local Own-Source Revenue	.092	.003	1.294	32.628	.000	.237	4.221

a. Dependent Variable: Economic Growth

Source: processed, 2016

Based on the table above, it can be concluded that regression model does not have multicollinearity problem because the entire value of Variance Inflation Factor (VIF) is below 5 and the value of tolerance is less than 1.

Heterokedastisitas test in this research is done by using Spearman-Rank Method and Kendall. The result of heterokedastisitas test can be seen on the table as follow:

Table 2
The Result of Heteroskedastisitas Test with
Spearman-Rank Method and Kendall

			PER
Spearman's rho	PER	Correlation Coefficient	1.000
		Sig. (2-tailed)	.
		N	396
Institutional change		Correlation Coefficient	-.237**
		Sig. (2-tailed)	.000
		N	396
General Allocation Fund		Correlation Coefficient	.093*
		Sig. (2-tailed)	.045
		N	396
Tax Revenue Sharing Fund		Correlation Coefficient	.816**
		Sig. (2-tailed)	.000
		N	396
Natural Resources Revenue Sharing Fund		Correlation Coefficient	.371**
		Sig. (2-tailed)	.000
		N	396
Special Allocation Fund		Correlation Coefficient	.073*
		Sig. (2-tailed)	.048
		N	396
Local Own-Source Revenue		Correlation Coefficient	.829**
		Sig. (2-tailed)	.000
		N	396

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Source: processed, 2016

Based on the table above, it can be seen that the value of asymptotic significance (2-tailed) correlation on each of independent variables and dependent variables are smaller than alpha 5%, which means that regression does not have heteroskedastisitas problem.

Autocorrelation test uses Durbin Watson method. The result of Durbin Watson autocorrelation test can be observed on the table as follow:

Table 3
The Result of Autocorrelation Test of Durbin Watson Method
Model Summary^b

Model	R	R Square	Adjusted Square	Std. error of the Estimate	Durbin-Watson
1	.925	.855	-.853	4.959E7	1.283

a. Predictors: (Constant), Local Own-Source Revenue, Natural Resources Revenue Sharing Fund, Special Allocation Fund, GAG, Institutional change, Tax Revenue Sharing Fund

b. Dependent Variable: PDRB

Source: processed, 2016

Based on the result of test above, it can be known that the value of DW is 1.283. By observing Durbin Watson table on the significance of 0.05, with the number of panel data in 528 and k=6 (the number of variables), it is obtained that $dL=0.85$ and $DU = 1.05$. Therefore, it is obtained that the result of $dU < DW < 4-dU$ ($1,05 < 1,283 < 2,35$). It means that model does not have autocorrelation problem.

Based on the test above, it is proved that regression equation is free from the symptoms of multicollinearity, heteroskedastisitas and autocorrelation which means that regression equation has been qualified as assessor that is BLUE (best, linier, unbiased, estimator).

The Influence Test on Institutional change, GAG, TRS, NRRSF, SAF and LOSR Regional Economic Growth in Indonesia

To know whether Institutional change, GAG, TRS, NRRSF, SAF and LOSR have significance effects towards regional economic growth of all provinces in Indonesia, it is done F test. The result of F test can be observed on the table as follow:

Table 6
The Result of F Test
ANOVA^b

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	5.639E18	6	9.398E17	382.157	.000 ^a
	Residual	9.566E17	389	2.459E15		
	Total	6.595E18	395			

a. Predictors: (Constant), Local Own-Source Revenue, Natural Resources Revenue Sharing Fund, Special Allocation Fund, GAG, Institutional change, Tax Revenue Sharing Fundb. dependent Variable PER

Source: processed, 2016

Based on the table above, it can be known that the value of F count is 383.157 with asymptotic significance of 0.000. Since the value of asymptotic significance of F is smaller than 0.05, it can be concluded that Institutional change, GAG, TRS, NRRSF,

SAF and LOSR has significant effects towards regional economic growth in Indonesia. In other words, regression model which is used is fit to predict economic growth.

To know whether Institutional change, GAG, TRX, NRRSF, SAF and LOSR partially have significant effects towards regional economic growth of all provinces in Indonesia, it is done T test. Coefficient of beta constant (C) has negative mark of -9.573 (with the probability of $0.035 < 0.05$). The coefficient means that the average of regional economic growth (REG) of all provinces in Indonesia is -Rp 9.573 million when there is no Institutional change (IT), General Allocation Fund (GAG), Tax Revenue Sharing Fund (TRS), Natural Resources Revenue Sharing Fund (NRRSF), Special Allocation Fund (SAF) and Local Own-Source Revenue (LOSR).

Beta coefficient of Institutional change (IT) has positive mark of 1.160 (with the probability of $0.037 < 0.05$). It can be concluded that IT has positive and significant effects towards regional economic growth (REG) of all provinces in Indonesia. Regression coefficient of IT is 1.160 which means that if IT increases 1 unit, regional economic growth will increase 1.160 units.

Beta coefficient of General Allocation Fund (GAG) has positive mark of 0.007 (with the probability of $0.445 < 0.05$). It can be concluded that GAG has positive and significant effects towards regional economic growth (REG) of all provinces in Indonesia. Regression coefficient of GAG is 0.007 which means that if GAG increases 1 unit, regional economic growth will increase 0.007 units.

Beta coefficient of Tax Revenue Sharing Fund (TRS) has positive mark of 0.060 (with the probability of $0.000 < 0.05$). It can be concluded that TRS has positive and significant effects towards regional economic growth (REG) of all provinces in Indonesia. Regression coefficient of GAG is 0.060 which means that if TRS increases 1 unit, regional economic growth will increase 0.060 units.

Beta coefficient of Natural Resources Revenue Sharing Fund (NRRSF) has positive mark of 0.024 (with the probability of $0.000 < 0.05$). It can be concluded that NRRSF has positive and significant effects towards regional economic growth (REG) of all provinces in Indonesia. Regression coefficient of GAG is 0.024 which means that if NRRSF increases 1 unit, regional economic growth will increase 0.024 units.

Beta coefficient of Special Allocation Fund (SAF) has positive mark of 0.127 (with the probability of $0.032 < 0.05$). It can be concluded that SAF has positive and significant effects towards regional economic growth (REG) of all provinces in Indonesia. Regression coefficient of GAG is 0.127 which means that if SAF increases 1 unit, regional economic growth will increase 0.127 units.

Beta coefficient of Local Own-Source Revenue (LOSR) has positive mark of 0.092 (with the probability of $0.000 < 0.05$). It can be concluded that LOSR has

positive and significant effects towards regional economic growth (LOSR) of all provinces in Indonesia. Regression coefficient of GAG is 0.092 which means that if LOSR increases 1 unit, regional economic growth will increase 0.092 units.

Table 5
The Value of R²
Model Summary

<i>Model</i>	<i>R</i>	<i>R Square</i>	<i>Adjusted R Square</i>	<i>Std. Error of the Estimate</i>
1	.925 ^a	.855	.853	4.959E7

a. Predictors: (Constant), Local Own-Source Revenue, Natural Resources Revenue Sharing Fund, Special Allocation Fund, GAG, Institutional change, Tax Revenue Sharing Fund
Source: processed, 2016

Based on the table above, it can be known that the value of R-squared (R²) is 0.855. R² means that 85.5% variations of regional economic growth (REG) of all provinces in Indonesia can be explained by Institutional change, General Allocation Fund (GAG), Tax Revenue Sharing Fund (TRS), Natural Resources Revenue Sharing Fund (NRRSF), Special Allocation Fund (SAF) and Local Own-Source Revenue (LOSR), while the rest of 14.5% can be explained by other variables outside the model, such as regional spending, other LOSR, investment, interest rate and so on.

DISCUSSION

The analysis result of multiple regressions of panel data with 528 data show that institutional change has positive and significant effects with beta coefficient of 1.160 (probability of 0.037 < 5%). It happens because the implementation of institutional change brings the changes in regulation and organization principles, the behavior and the patterns of interaction of economy activity in the community. Institutional change embodied in the regional expansion and changes in the government's structure. Regional expansion and changes in the government's structure lead to a change of local governance in developing the gross regional domestic product. The local government which has good growth continues to raise its income and to accelerate economic growth in their region so that the people can be more prosperous. This is supported by empirical data of the increasing of the gross regional domestic product on various new Province which has expansion area.

North Maluku Province which experienced the regional growth on October 4, 1999 has regional economic growth amount Rp 5.2 trillion from Rp 858 billion (2000) to Rp 6.06 trillion (2015). Banten Province which experienced the regional growth on October 17, 2000 has the Gross Domestic Regional Product's growth amount Rp 176 trillion from Rp 16 trillion (2000) to Rp 192 trillion (2015). Bangka-

Belitung which experienced the regional growth on December 4, 2000 has the Gross Domestic Regional Product's growth amount Rp 28.43 trillion from Rp 1.87 trillion (2000) to Rp 30.3 (2015). Gorontalo Province has increased the Gross Domestic Regional Product amount Rp 8.38 from Rp 818 billion (2000) to Rp 9.2 trillion (2015). West Papua Province has the Gross Domestic Regional Product's growth on 21 November 2001, amount Rp 15.13 trillion from Rp 21.07 trillion (2002) to Rp 36.2 trillion (2015). Riau which experienced the regional growth on October 25, 2002 has the Gross Domestic Regional Product's growth amount Rp 53.4 trillion from Rp 26.8 trillion (2003) to Rp 80.2 trillion (2015). West Sulawesi Province has raised the Gross Domestic Regional Product on October 5, 2004 amount Rp 9.8 trillion from Rp 3.1 (2005) to Rp 12.9 trillion (2015) (Source: Central Bureau of Statistic's report, various editions).

General Allocation Fund (GAF) does not give positive and significant impact on regional economic growth (Gross Domestic Regional Product) of all provinces in Indonesia with a beta coefficient of 0,135227 (with a probability of $0.445 > 0.05$). It happens because the distribution of GAF from central government to local governments (district and provincial) less under guard from the central government. Therefore, the realization does not significantly strengthen the aspects of realization of revenue from the provincial and district governments. Data from Central Bureau of Statistic (2003 and 2010 edition) shows the GAF from central government to local governments of all provinces in Indonesia in 2000 amount to Rp 5.4 trillion increase to Rp18,7 in 2009. Distribution of GAF from central government to local government is a lump sum, based on some variable including population, area, and the ability of its fiscal areas. In the reality, the GAF can be used by local governments to build infrastructure, public facilities, education and health facilities. However, there are no strict limits to the realization of GAF so that GAF does not give significant impact on regional economic growth in each province in Indonesia. Different finding was revealed by Waluyo (2007). He says that fiscal decentralization promotes economic growth was relatively higher in the central business district and the area which has rich natural resources than the region which is not a business center and poor of natural resources.

Tax of Revenue Sharing Fund (TRSF) brings positive and significant impact on regional economic growth (REG) in Indonesia with a beta coefficient of 0.060 (with a probability of $0.000 < 0.05$). It happens since the implementation of fiscal decentralization, the proportion of funds of sharing sourced from taxes which is returned to local governments is greater than before the fiscal decentralization. The proportion of greater funds for the local government strengthens the realization of local government's revenue (province). Several editions of published data from Central Bureau of Statistic shows a huge increase of TRSF in 2000 amount Rp 1.37 into Rp15,73 in 2015. The Funds is derived from Land and Building Tax (LBT), Duties on Land and Building Transfer (DLBT) and Income Tax (IT). The funds

from LBT and DLBT is divided between the province, regency / city, and the government, according to the Indonesian law No. 33 of 2004 Section 11 and 12). The results of this study are in line with the findings of Waluyo (2007) that the transfer of income tax, LBT and DLBT has a positive impact on economic growth. This study is also in line with the findings of Mahroji (2005) about increased value of Tax of Revenue Sharing Fund between the center and regions affect the financial condition of the center and regions.

Revenue Sharing Fund of Natural Resources has positive and significant impact toward regional economic growth (REG) in Indonesia with a beta coefficient of 0.024 (with a probability of $0.0000 < 0.05$). It happens since the implementation of fiscal decentralization, the proportion of Revenue of Sharing Fund from natural resources which are returned to local governments is greater than before the fiscal decentralization. The proportion of greater Revenue Sharing Fund for Natural Resources for the local government strengthens the realization of regional's revenue (provincial). Several edition of published data from Central Bureau of Statistic shows a huge increase of Revenue Sharing Fund of Natural Resources in 2000 amount Rp891 billion to Rp7,9 trillion in 2015. Revenue Sharing Fund is from natural resources from forestry, mining, fisheries, mining, petroleum, gas mining earth, and geothermal. The results of this research are in line with the findings from Siagian (2010) that DBH SDA brings significant impact on regional economic growth in West Java province. However, different finding is found by Waluyo (2007). He finds that the policy of Revenue Sharing Fund of Natural Resources cannot give positive effects on economic growth.

Special Allocation Fund (SAF) brings positive and significant impact on regional economic growth (REG) in Indonesia with a beta coefficient of 0,127 (with a probability of 0,032, 0,05). It happens because the flow of SAF is given to the areas that have special needs. There are three criteria of special needs as defined by Indonesian law namely: 1) The need cannot be calculated by using the formula of General Allocation Fund; 2) the need is for a commitment or national priorities, 3) the need is to finance reforestation by district which produces natural resources. Thus, SAF is a specific transfer aims to the goals that have been set. Published report from Central Bureau of Statistic in 2000-2003 explains that in 2001, most of the provinces which do not get the flow from SAF are North Sumatra, West Sumatra, Riau, Jambi, South Sumatra, Bengkulu, Lampung, Bangka Belitung, Riau Islands, Jakarta, Java west, Yogyakarta, East Java, Bali, NTB, NTT, west Kalimantan, South Kalimantan, East Kalimantan, North Sulawesi, South Sulawesi, Gorontalo, west Sulawesi, Maluku, North Maluku and west Papua. But in 2009, there are only 5 provinces that do not get a share of SAF. They are Riau, South Sumatra, Jakarta, West Java and East Kalimantan (Central Bureau of Statistic, 2010). According to Law No. 33 of 2004 Article 38, 39, 40, 41, and 42, SAF is a specific transfer of funds to certain regions in the framework of national commitments and only distributed

to the District Government / City. The region which receives the funds from SAF should provide matching funds at least 10% of the SAF. In 2009, the Province which got the largest fund from SAF is Papua Province amount Rp74,6 billion. However, the Province which got the smallest fund from SAF is Riau amount Rp 5.8 billion (CBS, 2016).

Local Revenue (LR) gives positive and significant impact on regional economic growth (REG) for each province in Indonesia with a beta coefficient of 0.092 (with a probability of $0.000 < 0.05$). It happens because the local revenue are collected from the public. It is used to stimulate economic activities in the province. LR is collected from the public according to local regulations. It is used for the financing of development activities in the areas. LR consists of local taxes, levies, results of regional company, and wealth management which is separated from other legitimate local revenues. Local Revenue from all provinces in Indonesia is increased amount Rp 53074,03 trillion from Rp 6326,84 trillion (2000) to Rp 59400,88 (2015). The growth of local revenue in all provinces in Indonesia, indicates that the growth of financial resources in every district for financing regional economic activities and its development. This is in line with the findings from Wibisono (2005) about regional economic growth which is affected by local revenue.

CONCLUSIONS AND RECOMMENDATIONS

Conclusion

Based on the result, it can be drawn as follows: First, the institutional change means that there are changes in the regulatory and organizational principles, behavior and interaction patterns as the impact of regional area's growth and the change in the government's structure. There are seven provinces, 135 regencies and 32 cities that are formed as a result of the expansion area. The seven provinces which have expansion area since 1999 are the North Maluku, Banten, Bangka Belitung, Gorontalo, West Papua, Riau Islands and West Sulawesi.

Second, the effect of institutional change of the economic growth in Indonesia period 2000-2015 is described as follows: Transforming Institutions, Tax of Revenue Sharing Fund (TRSF), Revenue Sharing Fund of Natural Resources, and Special Allocation Fund (SAF). Regional Income (RI) leads to positive and significant impact on regional economic growth across the provinces in Indonesia, while the General Allocation Fund (GAF) does not bring significant impact on regional economic growth of all provinces in Indonesia.

Suggestion

Based on the conclusions of the research, there are some suggestions. Firstly, the implementation of institutional change should focus on increasing economic

growth in the province, but it needs to be balanced with efforts to reduce inequalities in income distribution among communities in the province and between provinces. The implementation of institutional change must be accompanied by practical guidelines for financial governance and the utilization of the area accompanied by reward and punishment.

The local governments in all provinces in Indonesia should develop the positive trend of local revenue. The efforts to promote positive trend of revenue can be done through the optimization and revitalization of district's revenue whether from financial balance regional centers, non-financial balance between the center and regions as well as from the rest of the budget over the past year. Optimization and revitalization Financial Center Fiscal Balance (FCFB) Fund covers the general allocation fund, the Fund for tax revenue, non-tax funds for natural resources, and special allocation funds. Optimizing the utilization of TRSF includes land and building tax revenue as well as fees for acquisition of land and property, and income taxes. However, optimizing and revitalization of non FCFB's funds include special allocation funds, local revenues and other income which were legitimate.

Second, institutional change in the form of regional divisions and institutional behavior changes should be retained along with intensive monitoring and evaluation of the fund management revenues and expenditures of the area, both in the province which has transforming institutional and provinces who do not have the institutional change. The government is advised to keep disbursing the balance mainly GAF, TRSF, and Tax of Revenue Sharing Fund of Natural Resources to all provinces in Indonesia. However, the central government needs to do a dick intensive on the use of equalization fund so that utilization of the fund will give more significant impact on economic growth in all provinces in Indonesia. On the other hand, local governments also need to keep increasing regional revenue by optimizing local tax revenue, levies, profit enterprises, and other legal acceptance.

This research has several limitations, namely: First, data on institutional change in this research focuses on institutional changes as the result of expansion area of provinces in Indonesia during the period 2000-2015. In fact, during that period there were 135 counties and 32 cities that were formed as a result of the expansion area. Therefore, further research is expected to investigate the impact of regional expansion area at the level of counties and cities to regional economic growth in Indonesia.

Second, the panel data regression period 2000-2015 in 33 provinces in Indonesia with 528 rows of data start from the assumption that the behavior of the data among provinces in Indonesia is the same intertemporal. It is assumed that there is no linkage between provinces (there is no change in the behavior of data between provinces, there is no population of migration between regions, there is no movement of capital and luxury goods movement between regions). Therefore,

further research is recommended to use other approaches, such as panel data regression model with Fixed Effect approach which is implemented with techniques Least Squares Dummy Variables (LSDV) or Approach Random Effect or Error Component Model (ECM) technique Generalized Least Square (GLS).

References

- Arsyad, Lincoln. (2004), *Ekonomi Pembangunan*. Yogyakarta: STIE YKPN.
- Brandt, Loren dan Zhu, Ziadong. (2000), Redistribution in a Decentralized Economy: Growth and Inflation in China Under Reform. *The Journal of Political Economy*. Vol. 108 issue 2, April 2000.
- Davoodi, H. and Zou, H. F. (1998), Fiscal decentralisation and economic growth: A cross-country study, *Journal of Urban Economics*, 43(2): 244-257.
- Ghozali, Imam. (2005), *Aplikasi Analisis Multivariate dengan Program SPSS*. Semarang: Badan Penerbit Universitas Diponegoro.
- Gujarati, Damodar N. (2003), *Basic Econometrics 4th ed*. New York: McGraw-Hill.
- Hussey, Jill and Roger Hussey. (1997), *Business Research: A Practical Guide for Undergraduate and Postgraduate Students*. New York: Palgrave.
- Jutting, et al. (2004), *Decentralisation and Poverty In Developing Countries: Exploring The Impact*. OECD Development Centre Working Paper No. 236.
- Kuncoro, Mudrajad. (2002), *Analisis Spasial dan Regional: Studi Aglomerasi dan Kluster Industri Indonesia*. Yogyakarta: UPP-AMP YKPN.
- Kuncoro, Mudrajad. (2009), *Ekonomika Indonesia: Dinamika Lingkungan Bisnis di Tengah Krisis Global*. Yogyakarta: UPP-STIM YKPN.
- Mahi, Raksaka. (2005), "Peran Pendapatan Asli Daerah di Era Otonomi Daerah." *Jurnal Ekonomi dan Pembangunan Indonesia*, Vol. 6, No. 1 Juli 2005.
- Mahroji, Dwi, (2005), *Pengaruh Bagi Hasil Pajak Pertambahan Nilai (PPN) Antara Pusat dan Daerah Terhadap Kondisi Keuangan Pusat dan Kabupaten/Kota di Indonesia*. Jakarta: Program Pascasarjana Ilmu Ekonomi, FE UI.
- Parkin, Michael dan Robin Bade. (1995), *Modern Macroeconomics. Fourth Edition*. Ontario, Printice Hall Canada Inc., Scarborough.
- Sjafrizal, (1997), Pertumbuhan Ekonomi dan Disparitas Regional Wilayah Indonesia Bagian Barat. *Prisma*, 3 Maret 1997.
- Sukirno, Sadono. (2002), *Pengantar Teori Makroekonomi*. Jakarta: PT. Rajawali Grasindo Persada.
- Todaro, Michael P. Dan Stephen C. Smith. (2009), *Economic Development. Tenth Edition*. United Kingdom: Pearson Education Limited.
- Undang-Undang Republik Indonesia No. 5 Tahun 1974 tentang *Pokok-pokok Pemerintahan di Daerah*. Jakarta: Sekretariat Negara Indonesia.
- Undang-Undang Republik Indonesia No. 25 Tahun 1999 tentang *Perimbangan Keuangan Antara Pemerintah Pusat dan Daerah*. Jakarta: Sekretariat Negara Indonesia.
- Undang-Undang Republik Indonesia No. 33 tahun 2004 tentang *Perimbangan Keuangan Antara Pemerintah Pusat dan Daerah*. Jakarta: Sekretariat Negara Indonesia.

- Undang-Undang Republik Indonesia No. 34 Tahun 2000 tentang *Pajak Daerah dan Retribusi Daerah*. Jakarta: Sekretariat Negara Indonesia.
- Undang-Undang Republik Indonesia No. 32 Tahun 2004 tentang Pemerintahan Daerah. Jakarta: Sekretariat Negara Indonesia.
- Undang-Undang Republik Indonesia No. 33 Tahun 2004 tentang Perimbangan Keuangan Antara Pusat dan Pemerintahan Daerah. Jakarta: Sekretariat Negara Indonesia.
- Waluyo, Joko. (2007), *Dampak Desentralisasi Fiskal Terhadap Pertumbuhan Ekonomi Dan Disparitas Pendapatan Antarpropinsi Di Indonesia*. Yogyakarta: FE UPN.
- Welly, Didit dan Waluyo, Joko, (2000), Profil Disparitas Pendapatan Regional Antarpropinsi dan Wilayah di Indonesia." *Jurnal KOMPAK*. Yogyakarta: STIE "YO" Yogyakarta, Juli 2000.
- Wibisono, Yusuf. (2005), Sumber-Sumber Pertumbuhan Ekonomi Regional: Studi Empiris Antar Propinsi di Indonesia, 1984-2000. *Jurnal Ekonomi dan Pembangunan Indonesia*. Januari 2005, Vol.02, hal.91-120.
- Wibowo, Puji. (2008), Mencermati Dampak Desentralisasi Fiskal Terhadap Pertumbuhan Ekonomi Daerah. *Jurnal Keuangan Publik*. Vol. 5, No. 1, Oktober 2008, hal 55 -83.
- Woller, G. M. dan Phillips, K., (1998), "Fiscal Decentralization and LDC Economic Growth: An Empirical Investigation." *The Journal of Development Studies*, XXXIV (4):139-48.
- Wooldridge, J. M., (2006), *Introductory Econometrics: A Modern Approach*. 3rd edn. South-Western: Thomson.
- Yustika, Ahmad Erani. (2008), *Ekonomi Kelembagaan: Definisi, Teori, dan Strategi*. Malang: Bayumedia Publishing.